

I CLAIM

1. A method of operating a third generation mobile telecommunications system in which packets are addressed to a mobile node which is currently associated with a foreign network and which is communicating with a correspondent node, comprising the steps of:
 - 5 setting up a home agent in the correspondent node;
 allocating a Care of Address for the mobile terminal in the foreign network;
 changing the packet header at the correspondent node so that the destination address is the Care of Address; and
 - 10 providing a mobile node identifier whereby route optimization is provided.
2. A method according to Claim 1 in which the Care of Address represents the current location of the mobile node.
3. A method according to Claim 1 in which the Care of Address is the
15 address of a foreign agent in the foreign network.
4. A method according to Claim 3 in which the foreign agent stores a mapping table of mobile nodes and mobile node identifiers.
5. A method according to Claim 4 in which , when a packet is received by the foreign agent, the foreign agent looks at its stored mapping table to
20 locate the mobile node for which the packet is destined.
6. A method according to claim 1 comprising the further step of providing Quality of Service for the mobile in which an end-to-end Quality of Service enquiry message is sent from the correspondent node to the mobile node and a Quality of Service response message is returned hop-by-hop to
25 the correspondent node.
7. A method according to Claim 1 comprising the further step of providing Quality of Service for the mobile in which an end-to-end Quality of Service enquiry message is sent from the mobile node to the correspondent node, the mobile node having a built-in Quality of Service proxy server, and
30 the proxy server changing the packet header source address to the MN Care of Address.

8. A method according to claim 6 in which the Quality of Service is Resource reSerVation Protocol.

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